



Pete Ricketts
Governor

STATE OF NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Jim Macy

Director

Suite 400, The Atrium

1200 'N' Street

P.O. Box 98922

Lincoln, Nebraska 68509-8922

Phone (402) 471-2186

FAX (402) 471-2909

website: <http://deq.ne.gov>

November 23, 2016

Michael Washburn, P.E.
McClure Engineering
617 Pierce Street, Suite 201
Sioux City, Iowa 51101

RE: Force Main – US 20 to Bennet Lift Station
South Sioux City, NE
NDEQID# 65775

WWF# 16-0212

Dear Mr. Washburn,

We have received your preliminary plans for the above project. While this will likely be included in your final document we wanted to clarify the following about the project, so we can draft a construction permit before your submittal of final plans and specifications.

1. Is the dip in the force main between station 5+50 and 8+50, not significant enough to require a pressure relief valve?
2. Will elbows and changes in direction such as at stations 17+78, 17+95, 31+62 and 6+61 require thrust blocking?
3. What type of connection/joint will be included with the riser pipe and 8 inch connection at station 0+00?
4. Will the testing specification for the force main require pressure testing equal to water mains, per Title 123, Chapter 5, Section 004.05?
5. What type of bedding will be required for the force main?
6. In our phone conversations regarding alternatives, when the force main could not meet the 10 foot separation, we discussed two or three alternatives; casing the pipe, 10 foot diagonal separation or socks on the joints. For the fire hydrants you have included a 40 foot length of casing pipe. Will this be welded HDPE pipe or other? There appears to be approximately 100 feet to 150 feet where the force main is approximately 7 feet from water main. Since the section already includes 40 feet of casing, could the casing be extended over the entire length of force main that does not have the 10 foot of separation?
7. Please submit at least 2 hard copies of the final plans and specifications, with proper signing and dating of your seal.



Thank you for your assistance. If you have any questions please contact me at (402) 471-4260 or Charles Duerschner at (402) 471-4206.

Sincerely,

A handwritten signature in black ink that reads "Curtis Christiansen". The script is cursive and fluid, with the first name "Curtis" and last name "Christiansen" clearly legible.

Curtis Christiansen
Review Engineer
Nebraska Department of Environmental Quality